Learning outcomes mapped with domains of learning, teaching-learning methods, and assessment methods for the core competencies in MD Anesthesiology CBME Program

Date: 28th October 2020
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The goal of the three-year MD Anesthesiology Program is to produce competent Indian Specialists in Anesthesiology. The intended output of a competency-based MD Anesthesiology program is an Anesthesiologist who can practice Anesthesiology at a defined level of proficiency, in accord with Indian conditions, to meet the needs of the Indian population. The approximate duration of completion of all the milestones in core competencies is 150 weeks. This program is outcome-based, not process-based: what is attained is key, not just what is done. The program focuses on competencies that integrate knowledge, skill, attitude. The program is time-independent: length of training for defined outcomes is not preset. The program is individualized: trainees and contexts are not identical for all trainees. Workplace-learning & workplace-assessment is the methodology adopted for this program. Many learning outcomes have certain volume-of-practice requirement.

This document is intended to be a road-map for the implementation of the teaching-learning methods and assessment methods for the Core Competencies in MD Anesthesiology CBME (Competency Based Medical Education) Curriculum. Online and telephonic interviews of subject experts and curriculum experts were extensively used to prepare this document.

There are six professional roles to be learned by the postgraduate trainee in MD Anesthesiology during the three year training period:

1. Medical Expert
2. Communicator
3. Team Member
4. Team Leader
5. Scholar
6. Professional

This document has three broad sections:

I. Overview of Learning Outcomes (Competencies) during Introductory Training, Basic Training and Advanced Training: Page 3 – 6.
II. The six professional roles mapped to competencies, with domain of learning, teaching-learning methods, and assessment methods: Page 7 – 27.
III. The core clinical competencies mapped to domain of learning, teaching-learning methods, and assessment methods, along with the minimum volume of practice for the fundamental clinical skills in Anesthesiology: Page 28 – 31.

Abbreviations used this document

Learning Domains:
Knowledge (K)
Skill (S)
Attitude (A)
Communication (C)

Teaching-Learning Methods:
Small Group Rounds (SG)
Small Group Demonstration (D)
Simulation-based Learning (SbL)
Problem-based Learning Group (PbL)
Clinical Tutorial (CT)
Symposium (Sm)
Interactive Lecture (IL)
Web-based Learning (WbL)
Seminar (Sn)

Formative Assessment Methods:
Direct Observation of Procedural Skills (DOPS)
Mini Clinical Evaluation Exercise (CEX)
Direct Observation of Procedural Skills in a simulated setting (S-DOPS)
Case-based Discussion (CbD)
Multi-source Feedback (MsF)
Scholar Role Assessment (SRA)

Terminal Assessment Methods:
Long Answer Questions (LAQ)
Short Answer Questions (SAQ)
Objective Structured Clinical Examination (OSCE)
Viva-voce examination (VEx)
Practical Examination (PEx)
Scholar Role Assessment (SRA)

Approximate timelines of the training program:

1. Introductory Training: 26 weeks (initial part of 1st year)
2. Basic Training: 78 weeks (later part of 1st year and whole of 2nd year)
3. Advanced Training: 52 weeks (3rd year)

References:

1. Jennifer M Weller, et al. Systematic review and narrative synthesis of competency-based medical education in anaesthesia. British Journal of Anaesthesia 2020;124(6):748–760.
2. Frank JR, Snell L, Sherbino J, editors. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015. ISBN: 978-1-926588-28-5.
3. Thomas J. Ebert, Chris A. Fox; Competency-based Education in Anesthesiology: History and Challenges. Anesthesiology 2014;120:24–31.
4. Guidelines for competency based postgraduate training programme for MD in Anaesthesiology. Medical Council of India; 2019 (superseded by the National Medical Commission). URL: http://www.issp-pain.org/wp-content/uploads/2019/03/MD-Anesthesia.pdf (last accessed 01/09/2020).

Overview of Learning Outcomes (Competencies) during Introductory Training 26 weeks (initial part of 1st year)

Theme	Learning Outcome (Competencies)	Focus of assessment
Airway management	By the completion of introductory training, the trainee will be able to identify issues that may lead to difficulty in airway management. The trainee will be able to manage the normal airway with supervision, in both spontaneously breathing and ventilated patients and demonstrate an ability to maintain oxygenation when the airway is threatened.	Mask ventilation, use of supraglottic airway device, tracheal intubation, rapid sequence intubation, extubation.
General Anesthesia and Sedation	By the completion of introductory training, the trainee will be able to anesthetize or sedate a low-risk patient having low-risk surgery with supervision, applying an appropriate technique for the clinical situation. They will apply the knowledge of pharmacology in anesthetic practice.	Induction and maintenance of general anesthesia, intra-operative and postoperative monitoring.
Pain Medicine	By the completion of introductory training, the trainee will be able to manage simple acute pain and recognize clinical situations where consultation with supervisors is required to formulate a pain management plan.	Acute pain management, post-operative pain management.
Perioperative Medicine	By the completion of introductory training, the trainee will be able to perform a pre-operative assessment of patients to inform and discuss the perioperative management with supervisors and recognize when further assessment and optimization and/or referral is required.	Preoperative history taking, pre-operative airway assessment.
Regional and local anesthesia	By the completion of introductory training, the trainee will be able to perform spinal anesthesia and simple nerve blocks safely in low risk patients, including selection of appropriate patients and procedures, knowledge of aseptic techniques and management of common complications.	Spinal anesthesia, intra-operative and post-operative monitoring.
Resuscitation and trauma management	By the completion of introductory training, the trainee will be able to rapidly recognize clinical situations which are rapidly life threatening. The trainee will call for assistance and when appropriate after initiating management of these conditions. The trainee will be able to perform basic life support.	Basic life support, hypoxia management, hypotension management
Safety and quality in	By the completion of introductory training, the trainee will be able to outline the standards required for the safe	Pre-use check of anesthesia

anesthesia practice	provision of anesthesia and sedation and apply them in situations appropriate for a new trainee. They will demonstrate a patient-centered approach to practice, collaboration in multidisciplinary teams to ensure patient safety and the application of ethical principles to their practice.	workstation and anesthetic equipment, anesthesia record keeping, medication error prevention behavior

Overview of Learning Outcome (Competencies) during Basic Training
78 weeks (later part of 1st year and whole of 2nd year)

Theme	Learning Outcome (Competencies)	Focus of assessment
Airway management	By the completion of basic training, the trainee will be able to describe and correlate the airway anatomy, physiology and the equipment available for airway management. The trainee will be able to perform more advanced airway management techniques and use a wider range of ventilation strategies.	Tracheal intubation, rapid sequence intubation, extubation, awake tracheal intubation
General Anesthesia and Sedation	By the completion of basic training, the trainee will be able to anesthetize or sedate ASA physical status 1 – 3 patients having surgery of moderate complexity with supervision, applying an appropriate technique for the clinical situation. They will be able to describe the applied pharmacology underpinning anesthesia practice, perform vascular access and care of the anesthetized patient.	Induction and maintenance of general anesthesia in high risk cases, advanced levels of intra-operative and postoperative monitoring
Pain Medicine	By the completion of basic training, the trainee will become an effective member of an acute pain team. They will be able to implement a management strategy for patients with acute pain in the hospital environment in consultation with supervisors. They will be able to describe and correlate the neurobiology of pain, the assessment of pain, the applied pharmacology of analgesic agents and the interaction of chronic pain conditions with analgesic misuse and acute pain problems.	Acute pain management, chronic pain management
Perioperative Medicine	By the completion of basic training, the trainee will be able to apply their knowledge of basic medical sciences for safe practice of peri-operative medicine. They will be able to apply their clinical assessment knowledge and skills to assess severity of and optimization of common medical conditions that impact anesthesia with appropriate consultation and supervision.	Preoperative assessment in patients with multi-system diseases

Regional and local anesthesia	By the completion of basic training, the trainee will be able to perform spinal and epidural blocks on patients who are not anatomically difficult, and be able to manage ASA physical status 1 – 2 patients having procedures of moderate complexity under regional anesthesia with distant supervision. They will begin performing peripheral nerve blocks under supervision.	Epidural anesthesia, nerve blocks, intra-operative and post-operative monitoring
Resuscitation and trauma management	By the completion of basic training, the trainee will be able to participate as a multidisciplinary team member in the initial assessment and resuscitation of patients with life threatening medical and surgical conditions. They will be able to describe the patho-physiology of immediately life threatening conditions, and will be able to recognize and initiate management of crises that may be encountered by anesthetists in the course of their practice.	Advanced Cardiac Life support, Advanced Trauma Life Support
Safety and quality in anesthesia practice	By the completion of basic training, the trainee will be able to apply the current standards required for the safe provision of anesthesia and sedation in situations appropriate for a basic trainee. They will be able to describe the desirable safety features of environments where anesthesia and sedation is provided. They will be able to describe the principles of design, operation and safe use of equipment.	Prevention and management of serious adverse events under anesthesia and immediate postoperative period.

Overview of Learning Outcome (Competencies) during Advanced Training 52 weeks (3rd year)

Theme	Learning Outcome (Competencies)	Focus of assessment
Airway management	By the completion of advanced training, the trainee will be competent in advanced airway management and be able to teach airway management skills to junior trainees.	Tracheal intubation, rapid sequence intubation, extubation, awake tracheal intubation
General Anesthesia and Sedation	By the completion of advanced training, the trainee will be able to provide appropriate sedation and general anesthesia for ASA physical status 1 – 4 patients having complex procedures with distant supervision, taking into account the clinical situation including patient and procedural factors and patient co-morbidities and the trainee's experience.	Induction and maintenance of general anesthesia in high risk cases, advanced levels of intra-operative and postoperative monitoring
Pain Medicine	By the completion of advanced training, the trainee will	Acute pain

	be able to manage patients with acute pain and be able to participate as a multidisciplinary team member in the management of patients with chronic and cancer pain or those requiring palliative care. The trainee will recognize when referral to a pain medicine specialist is required.	management, chronic pain management
Perioperative Medicine	By the completion of advanced training, the trainee will be able to provide perioperative care for patients with significant co-morbidities, including pre-operative assessment and risk stratification, preparation and optimization prior to surgery, intra-operative care, and early and late postoperative care to ensure any harmful consequences of surgery are minimized.	Preoperative assessment in patients with multi-system diseases
Regional and local anesthesia	By the completion of advanced training, the trainee will be able to perform spinal and lumbar epidural blocks on patients who are anatomically difficult and to perform and manage neuraxial blockade in medically complex patients.	Epidural anesthesia, peripheral nerve blocks, intra-operative and post-operative monitoring
Resuscitation and trauma management	By the completion of advanced training, the trainee will be able to participate as a key multidisciplinary team member in the initial assessment and resuscitation of trauma patients and patients with life threatening medical and surgical conditions. They will be able to lead the management of life-threatening crises that may be encountered in the course of their practice.	Advanced Cardiac Life support, Advanced Trauma Life Support
Safety and quality in anesthesia practice	By the completion of advanced training, the trainee will demonstrate a commitment to patient safety and to the ethical and evidence based care of patients and others in the workplace. This includes incorporating the principles of continuous quality improvement into their practice and ensuring safe practice in the dynamic and complex environments of work.	Prevention and management of serious adverse events under anesthesia and immediate postoperative period

I. Competencies as a Medical Expert				
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
1. Practice medicine within their defined scope of practice and expertise				
1.1	Demonstrate a commitment to high-quality patient care	K, A	IL, WbL	CEX, MsF
1.2	Integrate the roles of medical expert, communicator, team member, team leader, scholar and professional into practice as an anesthetist	K, A	IL, WbL	CEX, VEx
1.3	Apply knowledge of the clinical and biomedical sciences relevant to anesthesia	K, S	IL, CT	PEx, VEx
1.4	Perform appropriately timed clinical assessments with management plans and recommendations that are presented in an organized manner	S, C	CT	CEX
1.5	Carry out professional duties in the face of multiple, competing demands	S, A	D, CT	CbD, CEX
1.6	Recognize and respond to the complexity, uncertainty, and ambiguity inherent in medical practice	K, S, A, C	D, CT	CbD, CEX
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
2. Perform a complete patient centered clinical assessment and establish a management plan				
2.1	Elicit a relevant history and perform a focused examination (including cardiovascular, respiratory, neurological, abdominal, musculoskeletal, and airway)	K, S, A, C	D, CT	OSCE, CEX, PEx
2.2	Adapt history taking and examination and order further investigations where clinically indicated, for example, to determine severity and to clarify diagnosis	K, S, C	D, CT, PbL	CEX, Pex, OSCE
2.3	Gather relevant information from all available sources including patient's notes, investigations and other health professionals where required	K	PbL	CbD, CEX
2.4	Arrange preoperative optimization and treatment when required	K	IL, PbL	CEX

2.5	Correctly interpret and discuss the implications of results of investigations	K	IL, PbL	CbD, CEX, OSCE
2.6	Identify and prioritize the significant issues and problems that need to be addressed including the patient's preferences and cultural beliefs and incorporate these into the perioperative plan	K, A, C	CT, PbL	CbD, CEX
2.7	Document assessment and findings	S, C	CT	CbD, CEX
2.8	Formulate appropriate clinical plans in collaboration with patients, their families, other health care professionals and team members	S, A, C	CT	CbD, CEX, MsF
2.9	Enumerate the relevant issues that may impact upon patient care including patient's health status, procedure, pathology, positioning, and identify any risks and alternative methods that can be used	K	Sm, PbL	CbD, CEX
2.10	Prioritize treatment or management options taking into account clinical urgency and available resources	K	CT, PbL	CbD, CEX
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
3. Demonstrate proficient and appropriate technical/procedural skills				
3.1	Demonstrate proficiency with: • Vascular access • Airway management • Central Neuraxial block • Other regional procedures • Invasive monitoring procedures	K, S	SbL, CT	S-DOPS, DOPS, CEX, OSCE
3.2	Describe clinical procedures including indications, contraindications, anatomy, technique side-effects and complications	K	IL, Sm, Sn	VEx, PEx
3.3	Explain the procedure to the patient and obtain valid and adequate informed consent	K, A, C	SbL	DOPS, OSCE

3.4	Prepare for the procedure •Ensure trained assisting staff are present and gives clear instructions •Check equipment and prepare drugs •Ensure clinically indicated monitoring •Arrange workspace ergonomically	K, S, A, C	D, CT, SbL	CEX, DOPS, OSCE
3.5	Demonstrate an aseptic technique and standard (universal) precautions	S	D, CL	DOPS, OSCE
3.6	Demonstrate manual dexterity and confidence with procedural techniques	S	SbL, D, CT	S-DOPS, DOPS
3.7	Demonstrate the correct procedural sequence with minimal hesitation and avoiding unnecessary actions	S	SbL, D, CT	S-DOPS, DOPS
3.8	Provide reassurance to patients and check for discomfort, concerns and complications during awake procedures	A, C	D, CT	DOPS, OSCE
3.9	Document episodes of care including any problems and complications that arose	K, C	CT	CEX
3.10	Arrange and document plans for post-procedural patient care	K, C	CT	CEX
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
4. Demonstrate safe, effective and efficient patient-centered care				
4.1	Implement appropriate plans including • Prepare for any interventions • Create a well organized workspace • Use time effectively and efficiently	K, A, S	CT, SbL	DOPS, CEX
4.2	Demonstrate situational awareness through constant monitoring of the patient (both clinically and electronically), the procedure and other personnel	A, S	CT, SbL	S-DOPS, MsF
4.3	Maintain focus on patient care and avoid distraction	A, S	CT	CEX, MsF
4.4	Anticipate and prepare for predictable clinical changes	K, S	CT	CEX, MsF

4.5	Respond in a timely manner to changes in the clinical environment or patient's status and intervene as required	A, S	CT, SbL	CbD, CEX
4.6	Manage emerging clinical problems or complications early to maximize patient safety	K, S	CT, SbL	CbD, CEX
4.7	Interpret available data and integrates information to generate differential diagnoses and management plans	K, S	CT, PbL, SbL	CbD, CEX
4.8	Arrange or provide follow up care for patients	K, S	CT	CEX
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
5. Actively contribute to the continuous improvement of health care quality and patient safety				
5.1	Recognize limits of their expertise and experience	K, A, S	CT	CbD, CEX, MsF
5.2	Recognize and respond to harm from health care delivery, including patient safety incidents	K, A, S	CT	CEX, DOPS
5.3	Seek assistance, abandon a procedure/intervention or arrange for alternative care to prevent harm to a patient	K, A, S, C	CT	CbD, MsF
5.4	Demonstrate awareness of issues that may affect own performance such as fatigue and illness	K, A	CT	MsF
5.5	Adopt strategies that promote patient safety and address human and system factors.	K, A	CT	CbD, CEX
II. Competencies as an effective Communicator				
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
1. Develop rapport, trust and ethical therapeutic relationships				
1.1	Establish positive relationships with patients that are characterized by trust and the involvement of patients and families as partners in their care	A, C	CT, D	CEX, MsF

1.2	Demonstrate effective communication skills including: •Active listening •Encouraging discussion •Reinforcing key points •Attending to verbal and nonverbal cues •Adapting to individual patient context, displaying sensitivity and communicating without prejudice or judgment to cultural, linguistic, gender, and sexual identity diversity •Recognizing and addressing miscommunication and barriers to communication	A, C	CT, D	CEX, OSCE
1.3	Adapt communication to a variety of clinical contexts including emergency and life-threatening situations where time is limited	A, C	CT, D	CEX, MsF
1.4	Communicate in a way that encourages confidence, allays anxiety and facilitates co-operation	A, C	CT, D	CEX, MsF
1.5	Comfort and reassure patients during stressful situations, procedures and/or during conscious sedation	A, C	CT, D	CEX, DOPS, MsF
1.6	Deliver bad news, deal with anger, confusion and misunderstanding with understanding, respect and compassion	K, A, C	CT, D	CEX, MsF
1.7	Recognize, negotiate and manage conflict with patients and families	K, A, C	CT, D	CbD, MsF
1.8	Avoid major miscommunication by identifying and moderating negative emotions such as anger and frustration which are possible symptoms of stress	K, A, C	CT, D	MsF
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
2. Accurately elicit and compile relevant information				
2.1	Gather information about the patient's medical condition as well as their beliefs, concerns, expectations and experience	K, C	CT, D	CEX

2.3	Elicit a patient's knowledge and experience of anesthesia and correct unrealistic expectations and misconceptions	K, A, C	SbL, CT	S-DOPS, CEX, OSCE
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
3. Accurately convey and explain relevant information				
3.1	Provide clear and concise instructions to assisting staff for clinical tasks	K, C	CT, D	CEX, DOPS, MsF
3.2	Individualize communication to the patient taking into account diversity and other factors including but not limited to: Gender, Age, Religion, Ethnicity and Culture, Language, Mental health status (including psychiatric conditions, dementia and intellectual disability), Disability, Knowledge level and intellectual capacity	K, A, C	CT, D	CEX, DOPS, MsF
3.3	Explain complex terms to patients in a simple and clear way to ensure they can understand, for example, awake intubation, regional techniques, rapid sequence induction, to ensure informed consent and co-operation	K, A, C	CT, D	CEX, DOPS, MsF, OSCE
3.4	Inform patients and families to allow them to understand the risks and be actively involved in shared decision making	K, A, C	SbL, CT, D	CEX, DOPS, MsF
3.5	Compile and convey relevant information concerning patients and plans to team members	K, A, C	CT	CEX, MsF
3.6	Provide relevant information to patients to facilitate understanding of procedures and plans	K, A, C	SbL, CT, D	CEX, DOPS, MsF
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
4. Develop a common understanding of issues, problems and plans				
4.1	Encourage discussion, including questions, with the patient to ensure a common	K, A, C	CT	CEX, MsF

	understanding of issues, problems and plans			
4.2	Respect diversity and difference and the impact they may have on decision-making	K, A, C	CT	CbD, MsF
4.3	Discuss potential post anesthesia problems and complications with patients and families and advise them when to seek assistance	K, C	SbL, CT	CEX, DOPS
4.4	Communicate unexpected complications and difficulties to patients and other health professionals to facilitate future care, for example, difficult airway access, anaphylaxis, both verbally and in writing	K, A, C	SbL, CT	CEX, MsF
4.5	Develop strategies to communicate with patients who are unable to talk, for example, due to intubation, a tracheostomy, aphasia	K, A, C	SbL, CT	CEX, MsF
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
5. Effectively convey oral and written communication				
5.1	Comprehensively, concisely and legibly document assessment and management plans	K, C	CT	CbD, CEX, DOPS
5.2	Record episodes of care including risks, complications and difficulties	K, C	CT	CbD, CEX, DOPS
5.3	Convey all relevant information when handing over responsibility of patient care to another anesthetist or other healthcare professional	K, C	CT	CEX, MsF
	III. Competencies to function as a Team Member			
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
1. Participate effectively and appropriately in an inter-professional healthcare team				
1.1	Describe the roles and responsibilities of an anesthetist and the other professionals in the healthcare team	K	Sm	LAQ

1.2	Describe the principles of team dynamics	K	Sm	SAQ
1.3	Function as an effective team member in inter-professional team meetings or during team decision making, demonstrating respect for: •Healthcare team ethics, including confidentiality •The diversity of roles, responsibilities, knowledge and competency of team members •Cultural differences within teams	K, A, C	D	CEX, MsF
1.4	Consult and work with others to develop and provide a shared plan of care	A, C	CT	CEX, MsF
1.5	Negotiate with other team members to priorities patient care taking into account factors such as urgency of procedure, patient and procedural requirements	A, C	CT	CEX, MsF
1.6	Negotiate with other team members to select an anesthetic technique taking into account patient, anesthetic and surgical needs	A, C	CT	CEX, MsF
1.7	Convey the anesthetic management plan to team members with clear instructions as to the roles and responsibilities of the team	A, C	CT	CEX, MsF
1.8	Enlist the cooperation and assistance of others, to optimize patient care and safety	A, C	CT	CEX, MsF
1.9	Participate effectively in team aspects of care, for example, peri-procedural checklists	A, C	CT	CEX, MsF
1.10	Safely hand over the responsibility of patient care to another anesthetist, healthcare professional or team	A, C	CT	CEX, MsF
1.11	Co-ordinate the safe transfer of patients within or between hospitals	A, C	CT	CbD, CEX, MsF
1.12	Describe the use of standard calling criteria for early recognition of deteriorating patients in the recovery room or wards	K, C	CT	CbD, CEX, MsF
1.13	Discuss the particular stressors inherent in the anesthetic context for self and other team members and seek assistance or provide support as necessary	K, C	Sm	CbD
1.14	Demonstrate leadership in healthcare teams, when required	K, C	Sm	MsF
1.15	Communicate effectively to allocate resources during crises	K, C	Sm	MsF, CbD

1.16	Function effectively as a team member and follow the leadership of others when required	K, C	Sm	MsF, CbD
1.17	Work collaboratively with colleagues and/or other health professionals on research, educational, quality assurance, and/or administrative tasks	K, C	Sm	SRA
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
2. Effectively work with other health professionals to prevent and resolve inter professional conflict.				
2.1	Demonstrate a respectful attitude towards all members of the inter professional team (for example, surgeons, nurses, anesthetic assistants, administration/management)	A, C	Sn	MsF
2.2	Acknowledge and show consideration for the professional perspectives, goals and priorities of all team members	A, C	Sn	MsF
2.3	Negotiate and work with others to prevent and resolve conflict in a manner and time-frame that is appropriate to clinical demands	A, C	Sn	MsF
2.4	Ensure that any workplace conflict does not impact patients or the care they receive	A, C	Sn	MsF
2.5	Respect and acknowledge differences, misunderstandings and limitations in self and other professionals that may contribute to inter professional tension	A, C	Sn	MsF
2.6	Understands and uses communication concepts such as graded assertiveness and closed-loop communication	A, C	Sn	MsF
2.7	Participate in team debriefing and implement strategies to improve performance	A, C	Sn	CbD, MsF
	IV. Competencies to function as a Team Leader			
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
1. Contribute to the improvement of health care delivery in teams, organizations, and systems				

1.1	Define the characteristics underpinning the provision of quality anesthetic services, that is, safe, effective, efficient, timely and patient-centered	K	IL, WbL, Sn	LAQ
1.2	Discuss the processes of quality assurance and quality improvement, and their application to anesthesia practice including: •Principles of quality assurance •Quality improvement cycle •Risk management •Nature of error •Relationship between adverse events, system factors and human factors •Incident monitoring •Root cause analysis	K	IL, WbL, Sn	LAQ
1.3	Outline strategies to identify and manage adverse events and near misses and analyze these to improve future patient care	K	IL, WbL, Sn	LAQ
1.4	Contribute to a culture that promotes patient safety, including participation in quality improvement activities.	K	IL, WbL, Sn	LAQ
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
2. Develop efficient and effective work practices				
2.1	Set priorities and manage time to balance patient care, practice requirements, outside activities and personal life	K	IL, WbL, Sn	MsF
2.2	Use information technology for patient care including accessing computerized results and medical records to facilitate and plan perioperative care	K	IL, WbL, Sn	CEX
2.3	Demonstrate effective leadership and organizational skills in the operation theater environment including: •Case allocation and prioritization	K, S	IL, WbL, Sn	CEX, MsF

	•Efficient running of theater lists •Prioritization of clinical tasks to match workload and calling for assistance when appropriate •Ensuring a safe environment and suitable resources for patient care			
2.4	Discuss how evidence-based medicine and management processes can be used to optimize cost-appropriate care for patients with significant co-morbidities	K	IL, WbL, Sn	LAQ
2.5	Discuss the standardization of equipment between different areas of care	K	IL, WbL, Sn	LAQ
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
3. Allocate finite healthcare resources appropriately				
3.1	Enumerate the general principles and sources of organizational and healthcare funding	K	IL, WbL, Sn	LAQ
3.2	Outline the relative costs of drugs and equipment in anesthesia	K	IL, WbL, Sn	CbD, SAQ
3.3	Balance safety, effectiveness, efficiency and equitable allocation of resources in: •Choosing anesthetic techniques •Making complex anesthetic equipment and drugs available in multiple locations •Providing anesthetic services in the broader healthcare environment	K	IL, WbL, Sn	CbD, LAQ, MsF
3.4	Optimize cost-appropriate care to minimize waste in the workplace and impact on the environment	K	IL, WbL, Sn	MsF
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
4. Demonstrate leadership and effective management in professional practice				
4.1	Discuss the dynamic nature of healthcare and the necessity of change, including the	K	IL, WbL, Sn	LAQ

	drivers and barriers to change			
4.2	Describe the principles of change management	K	IL, WbL, Sn	LAQ
4.3	Lead and facilitate change to enhance health outcomes and patient experience	K	IL, WbL, Sn	LAQ
4.4	Outline the administrative structure and lines of communication available within their health network, hospital and department, including subspecialty areas of practice	K	IL, WbL, Sn	LAQ
4.5	Outline the rules for formal meetings	K	IL, WbL, Sn	LAQ
4.6	Participate effectively in committees and meetings	K	IL, WbL, Sn	LAQ
4.7	Enumerate the financial, administrative and human resource requirements needed to manage a practice or hospital department, including: •Planning health care delivery (for example, staff rosters/rotas/schedules) •Factors affecting anesthesia expenditure •Adherence to local guidelines concerning anesthesia practice and equipment •Quality improvement activities •Processes by which new drugs are approved for research and clinical use in India	K	IL, WbL, Sn	LAQ
	V. Competencies as a Medical Scholar			
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
1. Engage in the continuous enhancement of their professional activities through ongoing learning				
1.1	Describe the principles and processes involved in the maintenance of competence and life-long learning	K	IL, WbL, Sm	LAQ
1.2	Participate in self-directed learning including: •Developing and amending learning plans as necessary •Identifying educational resources	K	IL, WbL, Sm	MsF

	•Keeping a log book of experience and learning issues •Reflecting upon learning issues in practice •Keeping abreast of relevant developments in other specialties			
1.3	Identify opportunities for learning and improvement by regularly reflecting on and assessing performance	K	IL, WbL, Sm	MsF
1.4	Initiate discussions with colleagues about performance improvement and be receptive to feedback from colleagues	K	IL, WbL, Sm	MsF
1.5	Participate in organized continuing professional development such as educational and scientific meetings and apply new insights to daily practice	K	IL, WbL, Sm	SRA
1.6	Participate in quality improvement, patient safety initiatives and peer-review activities to continuously improve personal practice and contribute to collective improvements in practice	K	IL, WbL, Sm	SRA
1.7	Participate in audit, including audit of personal practice	K	IL, WbL, Sm	SRA
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
2. Critically evaluate information and its sources, and integrate best available evidence into practice				
2.1	Describe the basic concepts of evidence-based medicine, including levels of evidence, meta-analysis and systematic review	K	IL, WbL, Sm	SRA
2.2	Describe the limitations of evidence-based medicine	K	IL, WbL, Sm	SRA
2.3	Critically appraise retrieved evidence in order to address clinical questions: • Conduct a literature search • Critically evaluate the integrity, reliability, quality and applicability of research and literature • Identify limitations of evidence	K	IL, WbL, Sm	SRA

	•Describe how evidence influences practice			
2.4	Integrate evidence into decision-making in clinical practice	K	IL, WbL, Sm	CbD, SRA
3. Contribute to the creation and dissemination of knowledge and practices applicable to anesthesia and health care				
3.1	Describe the principles and processes of research and scientific inquiry including: •Research ethics •Asking a research question •Conducting a systematic search for evidence •Selecting and developing appropriate methods to address a research question •Applying appropriate statistical analysis •Formatting and processing for research papers for publication	K	IL, WbL, Sm	SRA
3.2	Prepare a project proposal for a clinical research under supervision			
3.3	Conduct a clinical research project under supervision	K	IL, WbL, Sm	SRA
3.4	Publish a clinical research project report			
3.5	Demonstrate an understanding of the role of research in health care	K	IL, WbL, Sm	SRA
3.6	Summarize and communicate to professionals and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry and information about anesthesia care	K	IL, WbL, Sm	SRA, CEX
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
4. Teach others (including MBBS Students and Medical Interns)				
4.1	Describe the principles of adult learning relevant to medical education, including the challenges and opportunities presented by learning in clinical settings, and strategies to enhance learning	K	IL, WbL, Sm	SRA
4.2	Present effectively to larger groups	K	IL, WbL, Sm	MsF, SRA

4.3	Use multimedia educational resources and information technology effectively, to facilitate learning	K	IL, WbL, Sm	SRA
4.4	Recognize the influence of role-modeling and the role of both formal and informal learning	K	IL, WbL, Sm	CEX, MsF
4.5	Promote a safe learning environment in the workplace, for trainees and other learners	K	IL, WbL, Sm	MsF, SRA
4.6	Ensure patient safety is maintained when learners are involved in care	K	IL, WbL, Sm	MsF, SRA
4.7	Assess and evaluate learners, teachers and education programs	K	IL, WbL, Sm	MsF, SRA
	VI. Competencies as a Professional			
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
1. Demonstrate a commitment to patients through ethical practice				
1.1	Display the following values in all aspects of care: •Altruism •Commitment •Compassion •Honesty •Humility •Integrity •Respect	K, A	IL, WbL, Sm	CEX, MsF
1.2	Exhibit appropriate professional behaviors in practice, including, but not limited to: • Showing respect for the confidentiality and privacy of patients and colleagues • Punctuality • Working in a calm and considered manner, even in stressful situations • Responding promptly to requests for assistance or advice and taking responsibility for ensuring ongoing care	K, A	IL, WbL, Sm	MsF

1.3	Outline the principles of medical ethics described by the following terms: •Autonomy •Beneficence •Non-maleficence •Fidelity •Justice •Utility	K, A	IL, WbL, Sm	LAQ
1.4	Respect patient autonomy by enabling shared decision making and ensuring informed consent is obtained	K, A	IL, WbL, Sm	CEX, DOPS, MsF
1.5	Demonstrate a commitment to delivering the highest quality care, without judgment of the patient or situation	K, A	IL, WbL, Sm	MsF
1.6	Appropriately manage conflicts of interest, for example: • Where training needs and patient needs may vary • In clinical research • Regarding relationships with the health industry	K, A	IL, WbL, Sm	LAQ
1.7	Maintain appropriate relations with patients and their families	K, A	IL, WbL, Sm	CEX, MsF
1.8	Discuss the principles and limits of patient confidentiality and privacy as defined by professional practice standards and the law	K, A	IL, WbL, Sm	LAQ
1.9	Discuss commonly encountered ethical issues including: • Relief of pain and suffering and end of life care • Involvement in procedures to which there may be moral, ethical or clinical objections, for example, termination of pregnancy • Prevention of futile medical care • Organ donation and transplantation • Consent • Choices between maternal and fetal well being	K, A	IL, WbL, Sm	CbD, LAQ, VEx

	• Off label use of drugs			
1.10	Respond appropriately to ethical issues encountered in practice	K, A	IL, WbL, Sm	MsF
1.11	Discuss the unique vulnerability of anesthetized or sedated patients	K, A	IL, WbL, Sm	LAQ
1.12	Maintain respectful behavior in the presence of sedated and anesthetized patients	K, A	IL, WbL, Sm	CEX, MsF
1.13	Teach and learn in the workplace without compromising patient care	K, A	IL, WbL, Sm	SRA
1.14	Discuss the tension between an anesthetist's role as advocate for an individual patient and the need to manage scarce resources	K, A	IL, WbL, Sm	LAQ
1.15	Demonstrate sound judgment and ethical behavior in the allocation of resources and balancing of competing needs in their workplace	K, A	IL, WbL, Sm	MsF
1.16	Explain the potential abuses of social media and other technology-enabled communication, and their relation to professionalism	K, A	IL, WbL, Sm	LAQ
1.17	Use technology-enabled communication, including social media, in a professional, ethical, and respectful manner and in accordance with the Information Technology Rules and Data Privacy Rules	K, A	IL, WbL, Sm	LAQ
1.18	Intervene when aware of breaches of professionalism involving technology-enabled communication and social media	K, A	IL, WbL, Sm	MsF
1.19	Follow relevant policies and rules regarding the ethical use of electronic medical records	K, A	IL, WbL, Sm	MsF
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
2. Demonstrate cultural and bias awareness and sensitivity with patients and colleagues				
2.1	Describe how one's own biases may influence interaction with others	K, A	IL, WbL, Sm	CbD
2.2	Describe how the history, culture and socioeconomic status of various Indigenous populations impacts upon their current health status, education and communication	K, A	IL, WbL, Sm	LAQ

2.3	Describe the elements of indigenous cultures that may impact upon interactions between indigenous people and health services (for example, negative perceptions of hospitals in relation to death and cultural respect, strong family and community ties)	K, A	IL, WbL, Sm	LAQ
2.4	Identify groups from different cultures and religions in their workplace and acquire knowledge to improve their cultural and religious understanding	K, A	IL, WbL, Sm	MsF
2.5	Describe the principles underpinning culturally competent care and apply these to their practices	K, A	IL, WbL, Sm	LAQ
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
3. Demonstrate a commitment to society and the profession				
3.1	Describe the elements necessary for informed consent	K	IL, WbL, Sm	CbD, VEx
3.2	Obtain informed consent	A, C	CT, D	CEX, DOPS
3.3	Disclose to patients all costs associated with their anesthetic care to enable their informed financial decision making	A, C	D	CEX, DOPS
3.4	Describe how informed consent may be affected by the context in which it is obtained including: • Emergency and resuscitation situations • Pain • Concurrent medication • Cultural context • Age and competence of the patient	K	IL, WbL, Sm	CbD, VEx
3.5	Contribute to a culture of continuous quality improvement by actively participating in the reporting of adverse events and near misses and subsequent management processes	K	IL, WbL, Sm	MsF

3.6	Respond to actual or potential clinical error by accurately recording the event and applying the principles of open disclosure	K	PbL	CbD, MsF
3.7	Adopt a non-punitive approach to incident reporting and management	K	PbL	MsF
3.8	Outline and apply to practice the standards of ethical and professional conduct of a registered medical practitioner	K	IL, WbL, Sm	VEx, SAQ
3.9	Practice in a way that gives due consideration to the standards of anesthetic practice outlined in the Code of Medical Ethics Regulations of the NMC	K, A, S	IL, WbL, Sm	LAQ
3.10	Fulfill the regulatory and legal obligations required of practice in their jurisdiction, including: • Credentialing • Registration • Prescription and clinical use of restricted/controlled medications • Mandatory reporting	K	IL, WbL, Sm	MsF
3.11	Describe how to respond to, cope with, and constructively learn from a complaint or legal action	K	PbL	LAQ
3.12	Outline the rationale for accreditation and the role of self accreditation in the provision of sub-specialty anesthetic services (for example, cardiac or neonatal anesthesia) for both anesthetists and institutions	K	IL, WbL, Sm	LAQ
3.13	Outline the professional obligations and intervention necessary to protect patients when a colleague is impaired or practicing beyond the limits of their capabilities	K	IL, WbL, Sm	LAQ
3.14	Identify situations where senior assistance or supervision is required for junior surgeons and/or medical staff, and encourage, support or facilitate this as necessary	K	IL, PbL	CbD, LAQ
3.15	Respond in an appropriate and timely manner to others' unprofessional behavior in the workplace such as breaches of confidentiality, racial or other discrimination, or bullying and harassment	A, C	IL, PbL	MsF

3.16	Participate in peer review and the assessment of junior learners	K	IL, WbL, Sm	MsF
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Learning Domain**	**Teaching-Learning Method**	**Assessment Method**
4. Demonstrate a commitment to own health, sustainable practice and supporting colleagues				
4.1	Balance personal and professional priorities to ensure personal well-being and fitness to practice	K, A	IL, WbL, Sm	MsF
4.2	Outline how access to drugs for anesthesia and sedation may lead to dependency and describe the signs of possible drug dependency in colleagues	K	IL, WbL, Sm	SAQ
4.3	Discuss possible reasons for the increased suicide risk for anesthetists and ways in which risk can be alleviated	K	IL, WbL, Sm	SAQ
4.4	Outline the professional responsibilities of anesthetists who may be carriers of a communicable disease	K	IL, WbL, Sm	LAQ
4.5	Discuss the features indicating that another professional may be in need, particularly in relation to drug dependency and situations that may increase suicide risk	K	IL, WbL, Sm	LAQ, CbD
4.6	Describe avenues of assistance available to colleagues in need and help them to seek this out	K	IL, WbL, Sm	SAQ
4.7	Promote a culture that recognizes, supports, and responds effectively to colleagues and trainees in need	K, A	IL, WbL, Sm	MsF
4.8	Provide mentorship to colleagues and other trainees	K, A, C	IL, WbL, Sm	MsF
4.9	Describe the methods that may be used to mitigate stress related to clinical practice	K	IL, WbL, Sm	SAQ
4.10	Identify particularly stressful times in clinical practice and take measures to mitigate that stress for self and colleagues	K, A	IL, WbL, Sm	SAQ
4.11	Contribute to the advancement of anesthesia by involvement in professional organizations	K	IL, WbL, Sm	SAQ

Competencies in Fundamental Clinical Skills in the Practice of Anesthesia					
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Minimum Volume of Practice (mVoP)**	**Domain of Learning**	**Teaching-Learning Methods**	**Assessment Methods**
1. Perform airway management appropriate for various peri-operative scenarios					
1.1	Perform mask ventilation and triple maneuver	20	K, S	D, SbL	S-DOPS, DOPS
1.2	Appropriately use oropharyngeal airway and nasopharyngeal airway	10	K, S	D, SbL	S-DOPS, DOPS
1.3	Appropriately use supraglottic airway devices (cLMA, pLMA, i-gel, iLMA)	10	K, S	D, SbL	S-DOPS, DOPS
1.4	Appropriately use different laryngoscopes to visualize the larynx, including video laryngoscope, alternative blades	20	K, S	D, SbL	S-DOPS, DOPS
1.5	Perform endotracheal intubation by oral route	20	K, S	D, SbL	S-DOPS, DOPS
1.6	Perform endotracheal intubation by nasal route	10	K, S	D, SbL	S-DOPS, DOPS
1.7	Perform gaseous induction of general anesthesia (in an adult)	10	K, S	D, SbL	S-DOPS, DOPS
1.8	Perform awake fibrescopic bronchoscopy / awake video bronchoscopy and intubation	5	K, S	D, SbL	S-DOPS
1.9	Perform emergency cricothyrotomy in a simulated scenario	5	K, S	D, SbL	S-DOPS
1.10	Perform extubation procedure of tracheal tube after awakening of patient	10	K, S	D, SbL	DOPS

Serial No.	By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):	Minimum Volume of Practice (mVoP)	Domain of Learning	Teaching-Learning Methods	Assessment Methods
2. Perform vascular access for various peri-operative scenarios					
2.1	Perform peripheral venous access in difficult scenarios	20	K, S	D	DOPS
2.2	Perform central venous access (internal jugular vein, subclavian vein, femoral vein) under USG guidance, in simulated scenario	40	K, S	D, SbL, CT	S-DOPS,
2.3	Perform arterial cannulation (direct threading method, Seldinger method)	40	K, S	D, SbL, CT	S-DOPS, DOPS
2.4	Perform intraosseous vascular access in simulated scenario	10	K, S	D, SbL, CT	S-DOPS
2.5	Perform decannulation of central venous catheter and local hemostasis	5	K, S	D, CT	DOPS
2.6	Perform decannulation of arterial cannula or catheter and local hemostasis	5	K, S	D, CT	DOPS

Serial No.	By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):	Minimum Volume of Practice (mVoP)	Domain of Learning	Teaching-Learning Methods	Assessment Methods
3. Perform intravenous induction of general anesthesia, and maintenance of general anesthesia by gaseous and volatile agents and intravenous agents					
3.1	Perform intravenous induction of general anesthesia	50	K, S	D, SbL, CT	S-DOPS, DOPS

3.2	Perform maintenance of general anesthesia by balanced anesthetic technique (gaseous/volatile agents, neuromuscular blocking agents, opioids)	50	K, S	D, SbL, CT	S-DOPS, DOPS
3.3	Perform maintenance of general anesthesia by total intravenous anesthetic technique	20	K, S	D, SbL, CT	S-DOPS, DOPS
3.4	Perform maintenance of general anesthesia by gaseous and volatile anesthetic technique	30	K, S	D, SbL, CT	S-DOPS, DOPS
Serial No.	**By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):**	**Minimum Volume of Practice (mVoP)**	**Domain of Learning**	**Teaching-Learning Methods**	**Assessment Methods**
4. Perform continual monitoring of patients under general anesthesia, sedation, and regional anesthesia, and respond appropriately to abnormal changes in the status of oxygenation, circulation, ventilation, temperature of the patient					
4.1	Perform continual monitoring of patients under general anesthesia, and respond appropriately to abnormal changes in the status of oxygenation (SpO2), circulation (heart rate & rhythm, pulse rate, BP), ventilation (respiratory rate & pattern, ETCO2, tidal volume, peak airway pressure, minute ventilation) and temperature of the patient	100	K, S	D, SbL, CT	S-DOPS, DOPS
4.2	Perform continual monitoring of patients under regional anesthesia, and respond appropriately to abnormal changes in the status of oxygenation (SpO2), circulation (heart rate & rhythm, pulse rate, BP), ventilation (respiratory rate & pattern) and temperature of the patient	100	K, S	D, SbL, CT	S-DOPS, DOPS
4.3	Perform continual monitoring of patients under sedation, and respond appropriately to abnormal changes in the status of oxygenation (SpO2), circulation (heart rate & rhythm, pulse rate, BP), ventilation (respiratory rate & pattern) and temperature of the patient	50	K, S	D, SbL, CT	S-DOPS, DOPS
4.4	Perform monitoring of patients in the postoperative recovery room and respond appropriately to abnormal changes in the patient's condition	100	K, S	D, SbL, CT	S-DOPS, DOPS

Serial No.	By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):	Minimum Volume of Practice (mVoP)	Domain of Learning	Teaching-Learning Methods	Assessment Methods
5. Perform appropriate regional anesthesia and local anesthesia for surgical procedures					
5.1	Perform spinal anesthesia (subarachnoid block)	100	K, S	D, SbL, CT	S-DOPS, DOPS
5.2	Perform epidural anesthesia (lumbar, thoracic, caudal)	20	K, S	D, SbL, CT	S-DOPS, DOPS
5.3	Perform nerve blocks of the upper limb (brachial plexus block by various approaches, suprascapular nerve block, selective nerve blockade of distal nerves) under USG guidance and peripheral nerve stimulator	20	K, S	D, SbL, CT	S-DOPS, DOPS
5.4	Perform nerve blocks of the lower limb (lumbar plexus block, femoral nerve block, obturator nerve block, fascia iliaca block, sciatic nerve block, ankle block) under USG guidance and peripheral nerve stimulator	20	K, S	D, SbL, CT	S-DOPS, DOPS
5.5	Perform nerve blocks of the torso (lumbar paravertebral block, thoracic paravertebral block, pectoralis block, serratus anterior plane block, transversus abdominis plane block, erector spinae plane block, quadratus lumborum block) under USG guidance	20	K, S	D, SbL, CT	S-DOPS, DOPS

Serial No.	By the end of training, a post graduate trainee in MD Anesthesiology will be able to (Competency / Learning outcome):	Minimum Volume of Practice (mVoP)	Domain of Learning	Teaching-Learning Methods	Assessment Methods
6	**Perform Basic Life Support as per latest ACC-AHA guidelines**				
6.1	Perform Basic Life Support in adult in simulated scenarios	5	K, S	D, SbL, CT	S-DOPS
6.2	Perform Basic Life Support in child in simulated scenarios	5	K, S	D, SbL, CT	S-DOPS
6.3	Perform Basic Life Support in infant in simulated scenarios	5	K, S	D, SbL, CT	S-DOPS
6.4	Perform Basic Life Support in neonate in simulated scenarios	5	K, S	D, SbL, CT	S-DOPS
7	Perform Advanced Cardiac Life Support in adult in simulated scenarios	10	K, S	D, SbL, CT	S-DOPS
8	Perform Advanced Trauma Life Support ATLS of adult in simulated scenarios	5	K, S	D, SbL, CT	S-DOPS
9	Perform pre-use check of Anesthesia Workstation and other anesthetic equipment	10	K, S	D, SbL, CT	DOPS
10	Perform drawing up of anesthetic drugs in appropriate dilutions with syringe labels; cardiovascular drugs in appropriate dilutions with syringe labels	20	K, S	S, CT	DOPS